

**REMARKS/ARGUMENTS**

In the Office Action under reply, the Examiner acknowledged applicants' election of claims 1-17 and withdrew claims 18-32 from further consideration. In addition, the Examiner issued the following claim rejections:

- (1) claims 1-9 and 11-17 stand rejected under 35 U.S.C. §112, first paragraph, as lacking in enablement;
- (2) claims 1-17 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite; and
- (3) claims 1-17 stand rejected under 35 U.S.C. §102(b) as anticipated by Zettl et al. (2000), "Sharpened Nanotubes, Nanobearings, and Nanosprings," *Electronic Properties of Novel Materials – Molecular Nanostructures*, No. 544, pp. 526-532, 14th International Winterschoool/Euroconference, Kirchbert, Austria.

The aforementioned objections and rejections are addressed in part by the present amendments and are otherwise traversed for reasons that are discussed in detail herein.

**THE AMENDMENTS:**

Claim 1 has been amended to clarify the inventive subject matter and to address the Examiner's formality-based claim rejections. As this amendment is clerical in nature, no new matter has been added.

**STATUS OF THE CLAIMS:**

Claims 1-32 are pending. Claims 18-32 are withdrawn. Claim 1 has been amended. Claims 2-32 remain unchanged from the Preliminary Amendment filed on June 25, 2002.

**ENABLEMENT REJECTION UNDER 35 U.S.C. §112, FIRST PARAGRAPH:**

Claims 1-9 and 11-17 stand rejected as lacking in enablement under 35 U.S.C. §112, first paragraph. In support of this rejection, the Examiner contends that the specification discloses only a single technique to remove the end of a nanotube, i.e., by using a shaping electrode. Since claim 10 sets forth this technique, the Examiner's position appears to be that all claims lacking in this element are overbroad. Accordingly, the Examiner recommends incorporating the elements of claim 10 in all claims to overcome the rejection.

Applicants traverse this rejection because the application as filed describes additional techniques for removing the end of a nanotube. For example, the paragraph bridging pages 2 and 3 refers to known techniques, such as acid etching, for removing the ends of nanotubes. Cummings et al. (2000) *Nature* 406:586 provides further guidance in the peeling of nanotubes. Accordingly, the breadth of the claims is commensurate with the enabling disclosure contained in the application. Withdrawal of this rejection is therefore warranted and respectfully requested.

**INDEFINITENESS REJECTION UNDER 35 U.S.C. §112, SECOND PARAGRAPH:**

All claims under consideration stand rejected as being indefinite under 35 U.S.C. §112, second paragraph. In particular, the Examiner commented that the term "outermost shell" in claim 1 has no antecedent basis. In response, applicants have corrected this typographical error by changing the term to "outer shell." Accordingly, all claims are definite, and withdrawal of this rejection is requested.

**REJECTION UNDER 35 U.S.C. §102(B):**

Claims 1-17 stand rejected under 35 U.S.C. §102(b) as anticipated by Zettl et al. Noting that this article was provided by Applicants, the Examiner contends that all claim elements are expressly or inherently disclosed in the article.

Applicants traverse because Zettl et al. does not qualify as prior art under 35 U.S.C. §102(b). In particular, applicants point out that the subject application claims priority to U.S. Provisional Patent Application Serial No. 60/220,550, filed on July 25, 2000, and that Zettl et al. was not published more than one year before the priority date of the provisional application. In addition, Zettl et al. is authored by coinventors of the subject application. Accordingly, withdrawal of this rejection is in order and respectfully requested.

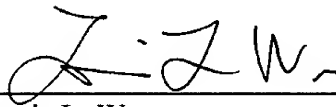
**CONCLUSION**

For all of the above reasons, it is submitted that the application comports with all formal requirements for patentability, and that the pending claims define an invention that is patentable over the art. As the application should now be in condition for allowance, a prompt indication to that effect would be appreciated.

The Examiner is welcome to contact the undersigned attorney at (650) 330-4912, if there are any questions concerning this communication.

Respectfully submitted,

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